VOLUME CONTENTS

VOLUME 11, 1986

NUMBER 1

Minireview

T. A. Dettlaff 1 The rate of development in poikilothermic animals calculated in astronomical and relative time units

General Papers

F. O. I. Arene 9 *Ascaris suum*: influence of embryonation temperature on the viability of the infective larva

G. P. Raaphorst and E. I. Azzam 17 Thermotolerance and thermal sensitization in a differentiating murine erythroleukemia cell line

K. Ivanov, V. Konstantinov, N. Danilova, N. Sleptchuck and G. Rumiantsev 25 Thermoreceptor distribution in different skin layers and its significance for thermoregulation

Mara L. Manis and Dennis L. Claussen 31 Environmental and genetic influences on the thermal physiology of *Rana sylvatica*

B. J. McGarry and H. M. Frankel 37 Effect of progressive hyperthermia on systemic and pulmonary circulation in the rat (*Rattus norvegicus*)

E. Turlejska and J. Łyszczarz 41 Dehydration does not influence the summer versus winter thermal adaptation changes in rabbits (*Oryctolagus cuniculus*), living in natural photoperiod

J. P. Ritchart and V. H. Hutchison 47 The effects of ATP and cAMP on the thermal tolerance of the mudpuppy, *Necturus maculosus*

Gabriel Osuide, Charles Wambebe and Subhash Bodhankar 53 Alteration of 5-hydroxytryptophan-induced hypothermia by serotonergic agents in the adult domestic fowl (*Gallus domesticus*)

Christopher J. Gordon, Merrit D. Long, Kimi S. Fehlner and Andrew G. Stead 59 Body temperature in the mouse, hamster, and rat exposed to radiofrequency radiation: an interspecies comparison

Glenn E. Walsberg and Wesley W. Weathers 67 A simple technique for estimating operative environmental temperature

NUMBER 2

M. Nichelmann, Z. Szelényi and B. M. Freeman v Foreword

Kurt Brück 73 Basic mechanisms in thermal long-term and short-term adaptation

L. Janský, S. Vybíral, J. Moravec, J. Nacházel, W. Riedel, E. Simon and C. Simon-Oppermann 79 Neuropeptides and temperature regulation

Zoltán Szelényi 85 Lower brainstem mechanisms of body temperature regulation in the guinea-pig (*Cavia aperea porcellus*)

M. J. Dauncey and D. L. Ingram 89 Acclimatization to warm or cold temperatures and the role of food intake

Fr.-K. Pierau, J. Szolcsányi and H. Sann 95 The effect of capsaicin on afferent nerves and temperature regulation of mammals and birds

Miklós Székely 101 Capsaicin-induced changes in behavioural thermoregulation of newborn rabbits (*Lepus cuniculus*)

M. Jurkschat, A. Burmeister, M. Nichelmann and E. Thomas — 105 — A mathematical equation to describe the influence of age, wind speed and ambient temperature on heat production in turkeys (*Meleagris gallopavo*)

B. Tzschentke and M. Nichelmann — 109 — The influence of wind speed on heat production in laying hybrids (*Gallus domesticus*) of different ages at various relative humidities

J. Stolpe — 115 — The combined effect of temperature and air movement on the growth and thermoregulatory functions of fattening pigs

A. Burmeister, M. Jurkschat and M. Nichelmann — 117 — Influence of stocking density on the heat balance in the domestic fowl (*Gallus domesticus*)

M. Nichelmann, E. Baranyiová, R. Goll and B. Tzschentke — 121 — Influence of feather cover on heat balance in laying hens (*Gallus domesticus*)

M. Herremans and E. Decuypere — 127 — Heat production of artificially defeathered dwarf cockerels at different ambient temperatures

M. W. A. Verstegen, W. van der Hel, R. Duijghuisen and R. Geers — 131 — Diurnal variation in the thermal demand of growing pigs

R. Geers, V. Goedseels, B. de Laet and M. W. A. Verstegen — 137 — Relationships between transport conditions and the occurrence of cough in growing pigs

R. Klopp, W. Niemer and W. Schippel — 139 — Use of liquid-crystal thermography of the tail of the rat to determine appropriate conditions for plethysmography

Announcement — I

NUMBER 3

J. Bouletreau-Merle, O. Terrier and P. Fouillet — 143 — Developmental temperature as a selective factor in balancing polymorphisms in *D. melanogaster* populations

P. Lenzi, J. P. Libert, C. Franzini, T. Cianci and P. L. Guidalotti — 151 — Short-term thermoregulatory adjustments involving opposite regional temperature changes

Razi Dmi'el — 157 — Selective sweat secretion and panting modulation in dehydrated goats

P. E. Wheeler — 161 — Thermal acclimation of metabolism and preferred body temperature in lizards

B. P. Ushakov† and I. M. Pashkova — 167 — Populational analysis of thermal responses—I. Changes in the heat resistance of muscle tissue and contractile muscle models of *Salamandra salamandra* larvae

B. P. Ushakov† and I. M. Pashkova — 175 — Populational analysis of thermal responses—II. Changes in the rate of development of *Salamandra salamandra* larvae

Günter Schingnitz and Jürgen Werner — 181 — Significance of scrotal afferents within the general thermoafferent system

NUMBER 4

Janusz Janiszewski — 191 — The effect of temperature changes on the spontaneous activity in the neural ganglia of the cockroach, *Periplaneta americana*

O. Shido, Y. Sugano and T. Nagasaka — 199 — Circadian change of heat loss in response to change in core temperature in rats

Margaret A. Kolka, Lou A. Stephenson and Richard R. Gonzalez	203	Environmental stress after atropine treatment
Bernard F. Murphy Jr	209	The effect of acclimation temperature and the removal of peripheral temperature receptors on body temperature preference in the cockroach, *Periplaneta americana*
M. P. Thomas, S. M. Martin and J. M. Horowitz	213	Temperature effects on evoked potentials of hippocampal slices from noncold-acclimated, cold-acclimated and hibernating hamsters
Raoul Van Damme, Dirk Bauwens and Rudolf F. Verheyen	219	Selected body temperatures in the lizard *Lacerta vivipara*: Variation within and between populations
R. Keith Dupre, James W. Hicks and Stephen C. Wood	223	The effect of hypoxia on evaporative cooling thresholds of lizards
Gero Feistkorn, Hanna Kaciuba-Uscitko, Stanisław Kozłowski and Claus Jessen	229	Muscle temperature and muscle metabolism during short-term exercise in the goat